

The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 13 (Canceled).

Claim 14. (New). A radial piston pump (1) for high-pressure fuel generation in fuel injection systems of internal combustion engines, in particular in a common rail injection system, having a drive shaft (4) which is mounted in a pump casing (2) and has an eccentric shaft section (6) on which a running roller (8) is mounted, and having preferably a plurality of pistons (16), which are arranged in a respective cylinder (14) radially with respect to the drive shaft (4) and each have a piston footplate (18), which makes contact with the circumferential surface (10, 12) of the running roller (8), at their ends facing the running roller (8), wherein surface (28, 31) of the piston footplate (18) which is in contact with the circumferential surface (10, 12) of the running roller (8) has at least one insert (30) made from a wear-resistant material, namely of hard metal, a ceramic material, a cast carbide material or cermet, and/or in that at least part of the running roller (8), in particular at least part of the circumferential surface (10, 12) of the running roller (8), consists of a wear-resistant material, namely of hard metal, a sintered tool steel or an alloyed nitriding steel.

Claim 15 (New). The radial piston pump as claimed in claim 14, wherein the piston (16) consists of a ceramic material.

Claim 16 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8) consists of a heat-treated steel and has inserts (32) made from hard metal, such as G20, GC37 or GC20, and in that the piston footplate (18) has inserts (30) made from ceramic, such as Si_3N_4 ceramic, from chilled cast iron, such as SoGGH, or from cermet.

Claim 17 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8) consists of a precision-cast material, such as GX-210WCr13 H, and in that the piston footplate (18) has inserts (30) made from ceramic, such as Si_3N_4 ceramic, from hard metal, such as G20, or from cermet.

Claim 18 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8) consists of a cast carbide material, such as chilled cast iron SoGGH, and in that the piston footplate (18) has inserts (30) made from ceramic, such as Si_3N_4 ceramic, from hard metal, such as G20, or from cermet.

Claim 19 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8) consists of sintered tool

steel, such as ASP23, or of an alloyed nitriding steel, and in that the piston footplate (18) has inserts (30) made from ceramic, such as Si_3N_4 ceramic, from hard metal, such as G20, from cermet or from a cast carbide material, such as SoGGH.

Claim 20 (New). The radial piston pump as claimed in claim 14, wherein the alloyed nitriding steel contains C and/or Cr and/or V and/or Mo, is gas-nitrided and does not have a compound layer in the region of contact with the piston footplate (18).

Claim 21 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8), on its circumferential surface (10, 12), has at least one insert (32) made from the respective wear-resistant material.

Claim 22 (New). The radial piston pump as claimed in claim 14, wherein the running roller (8), on its circumferential surface (12), has at least one transverse groove (36) extending transversely to the direction of movement.

Claim 23 (New). The radial piston pump as claimed in claim 14, wherein the piston footplate (18) has at least two grooves (50) which cross one another on its surface (31) facing the running roller (8).

Claim 24 (New). The radial piston pump as claimed in claim 14, wherein the surface of the piston footplate (18) and/or of the running roller (8) has a surface roughness R_z of between 0.15 μm and 2 μm .

Claim 25 (New). The radial piston pump as claimed in claim 14, wherein the piston consists of an Si_3N_4 ceramic or a ZrO_2 ceramic.

Claim 26 (New). The radial piston pump as claimed in claim 14, wherein the piston (16) is produced by extrusion and has a porosity of less than 5%, the surface being infiltrated with MoS_2 .

Claim 27 (New). The radial piston pump as claimed in claim 14, wherein the piston (16) is isostatically extruded and sintered.